



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0865; Directorate Identifier 2012-NM-199-AD]

RIN 2120-AA64

Airworthiness Directives; Fokker Services B.V. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Fokker Services B.V. Model F.28 Mark 0070 and 0100 airplanes. This proposed AD was prompted by an evaluation by the design approval holder (DAH) indicating that the butt-joints on the forward fuselage above the passenger door are subject to widespread fatigue damage (WFD). This proposed AD would require inspecting the forward fuselage butt-joints for cracking, repairing any crack, and eventually doing a terminating repair. We are proposing this AD to prevent fatigue cracking of such butt-joints, which could result in reduced structural integrity of the airplane and in-flight decompression of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL Hoofddorp, the Netherlands; telephone +31 (0)88-6280-350; fax +31 (0)88-6280-111; email technicalservices@fokker.com; Internet <http://www.myfokkerfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the MCAI, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0865; Directorate Identifier 2012-NM-199-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Structural fatigue damage is progressive. It begins as minute cracks, and those cracks grow under the action of repeated stresses. This can happen because of normal operational conditions and design attributes, or because of isolated situations or incidents such as material defects, poor fabrication quality, or corrosion pits, dings, or scratches.

Fatigue damage can occur locally, in small areas or structural design details, or globally. Global fatigue damage is general degradation of large areas of structure with similar structural details and stress levels. Multiple-site damage is global damage that occurs in a large structural element such as a single rivet line of a lap splice joining two large skin panels. Global damage can also occur in multiple elements such as adjacent frames or stringers. Multiple-site-damage and multiple-element-damage cracks are typically too small initially to be reliably detected with normal inspection methods. Without intervention, these cracks will grow, and eventually compromise the structural integrity of the airplane, in a condition known as WFD. As an airplane ages, WFD will likely occur, and will certainly occur if the airplane is operated long enough without any intervention.

The FAA's WFD final rule (75 FR 69746, November 15, 2010) became effective on January 14, 2011. The WFD rule requires certain actions to prevent catastrophic failure due to WFD throughout the operational life of certain existing transport category airplanes and all of these airplanes that will be certificated in the future. For existing and future airplanes subject to the WFD rule, the rule requires that design approval holders establish a limit of validity (LOV) of the engineering data that support the structural maintenance program. Operators affected by the WFD rule may not fly an airplane beyond its LOV, unless an extended LOV is approved.

The WFD rule (75 FR 69746, November 15, 2010) does not require identifying and developing maintenance actions if the DAHs can show that such actions are not necessary to prevent WFD before the airplane reaches the LOV. Many LOVs, however,

do depend on accomplishment of future maintenance actions. As stated in the WFD rule, any maintenance actions necessary to reach the LOV will be mandated by airworthiness directives through separate rulemaking actions.

In the context of WFD, this approach is necessary to enable design approval holders to propose LOVs that allow operators the longest operational lives for their airplanes, and still ensure that WFD will not occur. This approach allows for an implementation strategy that provides flexibility to DAHs in determining the timing of service information development (with FAA approval), while providing operators with certainty regarding the LOV applicable to their airplanes.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2012-0218, dated October 19, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

A report has been received of a crack, detected in a butt-joint on the forward fuselage of an F28 Mark 0100 aeroplane, above the passenger door. Investigation results revealed that, depending on the configuration of the aeroplane, four butt joints in the forward fuselage can be affected, at stringers 8, 37, 42 and 67 between fuselage stations 3850 and 5305.

This condition, if not detected and corrected, can result in an exponential crack growth rate, possibly leading to failure of the butt-joint over a certain length and consequent in-flight decompression of the aeroplane.

For the reasons described above, this [EASA] AD requires a one-time inspection [low frequency eddy current] of the forward fuselage butt joints for cracks and, depending on

findings, accomplishment of a temporary repair [including a detailed inspection for cracks in the butt strap on the inside of the applicable joint, and corrective actions if necessary] and reporting the findings to Fokker Services. In addition, this AD requires a permanent repair/modification [and a detailed inspection for cracks in the butt strap on the inside of the applicable joint, and corrective actions if necessary].

* * * * *

Corrective actions include removing the cracked part of the butt joint and installing an insert, and installing of an external repair strap. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Fokker Services B.V. has issued Fokker Service Bulletin SBF100-53-118, Revision 2, dated October 16, 2012; and Fokker Service Bulletin SBF100-53-119, Revision 2, dated May 8, 2013. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Differences Between This AD and the MCAI or Service Information

The MCAI specifies an alternative detailed visual inspection of the butt-joints from the inside of the fuselage. This proposed AD would not allow that inspection, and the difference has been coordinated with EASA.

Explanation of Compliance Time

The compliance time for the modification specified in this proposed AD for addressing WFD was established to ensure that discrepant structure is modified before WFD develops in airplanes. Standard inspection techniques cannot be relied on to detect WFD before it becomes a hazard to flight. We will not grant any extensions of the compliance time to complete any AD-mandated service bulletin related to WFD without extensive new data that would substantiate and clearly warrant such an extension.

Costs of Compliance

We estimate that this proposed AD affects 4 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	127 work-hours X \$85 per hour = \$10,795	\$0	\$10,795	\$43,180

We estimate the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these repairs:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair	30 work-hours X \$85 per hour = \$2,550	\$0	\$2,550

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this proposed AD is 2120-0056. The paperwork cost associated with this proposed AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this proposed AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591. ATTN: Information Collection Clearance Officer, AES-200.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Fokker Services B.V.: Docket No. FAA-2013-0865; Directorate Identifier 2012-NM-199-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Fokker Services B.V. Model F.28 Mark 0070 and 0100 airplanes, certificated in any category, as identified in Fokker Service Bulletin SBF100-53-118, Revision 2, dated October 16, 2012.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Reason

This AD was prompted by an evaluation by the design approval holder (DAH) indicating that the butt-joints on the forward fuselage above the passenger door are subject to widespread fatigue damage (WFD). We are issuing this AD to prevent fatigue cracking of such butt-joints, which could result in reduced structural integrity of the airplane and in-flight decompression of the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Inspection

Before the accumulation of 35,000 total flight cycles, or within 8 months after the effective date of this AD, whichever occurs later: Do a low frequency eddy current inspection for cracking of the forward fuselage butt-joints, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-53-118, Revision 2, dated October 16, 2012.

(h) Repair

If any cracking is found during the inspection specified in paragraph (g) of this AD, before further flight, do the actions specified in either paragraph (h)(1) or (h)(2) of this AD.

(1) Accomplish a temporary repair, including a detailed inspection for cracks in the butt strap on the inside of the applicable joint, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-53-118, Revision 2, dated October 16, 2012.

(2) Do a terminating repair of the forward fuselage butt-joints, including a detailed inspection for cracks in the butt strap on the inside of the applicable joint, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-53-119, Revision 2, dated May 8, 2013. Accomplishing the terminating repair specified in this paragraph is a method of compliance with the terminating repair required by paragraph (j) of this AD.

(i) Reporting

Submit a report of any crack findings from the inspection specified in paragraph (g) of this AD to Fokker Services, Hoeksteen 40, 2132 MS Hoofddorp, PO Box 1357, 2130 EL Hoofddorp, The Netherlands; by using the Reporting Form (figure 14 and figure 15, as applicable) of Fokker Service Bulletin SBF100-53-118, Revision 2, dated October 16, 2012; at the applicable time specified in paragraph (i)(1) or (i)(2) of this AD.

(1) If the inspection was done on or after the effective date of this AD: Submit the report within 30 days after the inspection.

(2) If the inspection was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

(j) Terminating Repair

Before the accumulation 50,000 total flight cycles, or within 8 months after the effective date of this AD, whichever occurs later: Do the terminating repair of the forward fuselage butt-joints, including a detailed inspection for cracks in the butt strap on the inside of the applicable joint, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-53-119, Revision 2, dated May 8, 2013. Do all applicable corrective actions before further flight.

(k) Credit for Previous Actions

(1) This paragraph provides credit for applicable actions required by paragraphs (g) and (h)(1) of this AD, if those actions were performed before the effective date of this AD using the service bulletins specified in paragraphs (k)(1)(i) or (k)(1)(ii) of this AD, which are not incorporated by reference in this AD.

(i) Fokker Service Bulletin SBF100-53-118, dated April 10, 2012.

(ii) Fokker Service Bulletin SBF100-53-118, Revision 1, dated July 6, 2012.

(2) This paragraph provides credit for actions required by paragraphs (h)(2) and (j) of this AD, if those actions were performed before the effective date of this AD using the service bulletins specified in paragraphs (k)(2)(i) or (k)(2)(ii) of this AD, which are not incorporated by reference in this AD.

(i) Fokker Service Bulletin SBF100-53-119, dated June 20, 2012.

(ii) Fokker Service Bulletin SBF100-53-119, Revision 1, dated October 30, 2012.

(l) Compliance Time Provisions

No alternative compliance times may be used for the modification required by paragraph (j) of this AD, unless extensive new data are provided and the compliance time

is approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (m) of this AD.

(m) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1137; fax (425) 227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(n) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information European Aviation Safety Agency Airworthiness Directive 2012-0218, dated October 19, 2012, for related information, which can be found in the AD docket on the internet at <http://www.regulations.gov>.

(2) For service information identified in this AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL Hoofddorp, the Netherlands; telephone +31 (0)88-6280-350; fax +31 (0)88-6280-111; email technicalservices@fokker.com; Internet <http://www.myfokkerfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate,

1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on September 30, 2013.

Jeffrey E. Duven,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2013-24795 Filed 10/22/2013 at 8:45 am; Publication Date:
10/23/2013]